IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

GLAXO GROUP LIMITED, Plaintiff, v. TEVA PHARMACEUTICALS USA, INC. and TEVA PHARMACEUTICAL INDUSTRIES LIMITED, Defendants.	Civil Action No. 04-171-KAJ **REDACTED VERSION** **August 4, 2006**

PLAINTIFF GLAXO'S ANSWERING BRIEF TO DEFENDANT'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT

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patent") and satisfies the "ethanol" claim limitation by equivalents. The patent applicant never amended the "ethanol" claim limitation to exclude equivalent types of ranitidine stabilizers. Defendant's amendment-based estoppel argument, therefore, does not apply to this case. *See Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002). Defendant also misapplied the *Festo* test for rebutting an allegation of amendment-based estoppel. Glaxo is entitled to summary judgment of patent infringement.

Even if the rebuttable presumption test of *Festo* were to apply, Glaxo need satisfy only one of the stated *Festo* rationale to pursue its equivalents claim. Glaxo satisfies a first rationale because the "stabilizing effective amount" amendment specified the amount, not the type of stabilizer required.

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This is precisely the type of equivalent captured by the doctrine of equivalents. *Festo*, 344 F.3d at 1369.

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6 "Anderson Rebuttal Rpt." refers to the Bradley D. Anderson, Ph.D., Fed. R. Civ. P. 26(a)(2) Rebuttal Expert Witness Report attached as Exhibit B to the Anderson Declaration submitted on June 30, 2006. (D.I. 98).

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The ability of ethanol to stabilize ranitidine in the Zantac® Syrup formulation came as a surprise to Dr. Long. (Long Decl., ¶ 18). He "never considered or tested whether had any stabilizing effect on ranitidine in an aqueous formulation for oral administration," and he "did not foresee the use of to enhance ranitidine stability in such a formulation" at any time prior to the issuance of the '249 patent. (*Id.* at ¶ 19).

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Defendant's separate assertion of argument-based estoppel distorts the facts from the '249 patent prosecution history and also fails to meet the legal standard of a "clear and unambiguous" surrender of subject matter. *Aquatex Industries, Inc. v. Techniche Solutions,* 419 F.3d 1374, 1382 (Fed. Cir. 2005). The court in *Glaxo Wellcome v. Pharmadyne* rejected the same argument defendant makes here:

> While it is true that Glaxo rejected propylene glycol it did so only as to its use as an agent against *pseudomonas cepacia*, not as an agent for stabilization. Nothing in the prosecution history of the '249 patent shows that Glaxo considered the use of propylene glycol or any other constituent as a stabilizer. The evidence reflects that the invention came as a surprise and was not an intended result.

Glaxo Wellcome, Inc. v. Pharmadyne Corporation, 32 F. Supp. 2d 265, 290-91 (D. Md. 1998) (specifically rejecting the application of *Tanabe Seiyaku Co. Ltd. v. ITC*, 109 F.3d 726 (Fed. Cir.

1997), as argued by defendant in this case). There is no evidentiary basis for defendant's argument-based estoppel contention.

The problem with defendant's other legal theories is that none of them are supported by the evidence, and they are often contradictory. Defendant vividly exemplifies such contradiction by first criticizing Glaxo and Dr. Long for not disclosing the use of as a ranitidine stabilizer in the '249 patent. (Teva Brief at 2, 21, 32). Defendant then misapplies the legal doctrine that provides that if an embodiment of an invention, such as the use of to stabilize ranitidine here, is disclosed but not claimed in a patent then the patentee waives a doctrine of equivalents claim for that embodiment. *See Johnson & Johnston Assocs. Inc. v. R.E. Service Co.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002). (Teva Brief at 3, 31-32). Defendant's theory is self-contradictory, and the rule of *Johnson & Johnston* could not possibly apply to this case. Defendant's reliance on *Johnson v. Johnston* is emblematic of its "kitchen sink" approach to staving off a judgment of patent infringement.

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Glaxo has proved, by much more than the required preponderance of evidence, the only function claimed for ethanol in the '249 patent. **REDACTED** Glaxo respectfully requests that the Court deny defendant's motion and grant Glaxo's motion for summary judgment of patent infringement.

II. STATEMENT OF FACTS

Glaxo includes herein only the most relevant facts for purposes of opposing defendant's motion. More complete descriptions and analyses of the technical background of the invention, the prosecution history of the '249 patent, and Glaxo's proofs of infringement are contained in

Glaxo's Opening Briefs on Claim Construction (D.I. 97) and in Support of its Motion for Summary Judgment of Infringement (D.I. 95) to which this Court is respectfully referred.

A. The '249 Patented Invention – How The Search For A Solution To Microbial Contamination Led To The Discovery Of A Ranitidine Stabilizer

At issue in this litigation are aqueous formulations of ranitidine (or one of ranitidine's physiologically acceptable salts) suitable for oral administration as claimed in the '249 patent. Dr. Long is the named inventor of the '249 patent, which issued on November 26, 1991 and was assigned to Glaxo. (Long Decl., ¶ 2). Ranitidine is the active ingredient in Glaxo's patented Zantac® Syrup formulation.

1. The Original Zantac® Syrup Formulation Contained No Ethanol And Suffered From Microbial Contamination

The original formulation for Zantac® Syrup contained the active ingredient ranitidine hydrochloride, an antimicrobial preservative system to protect the syrup against bacterial contamination, and other pharmaceutical excipients. *See Pharmadyne*, 32 F. Supp. 2d at 277. (*See also* Glaxo Investigational New Drug Application ("IND") at G007138, Langer Decl., Ex. 4). This original formulation did not contain ethanol, but it demonstrated adequate chemical stability of ranitidine and also protected the syrup against the specific microorganisms listed in the United States Pharmacopoeia ("USP"). *See id.* (*See also* Long Decl., Ex. 3, Long Tr.[7] 277-79; Glaxo IND at G007138, G007193, Langer Decl., Ex. 4). After submission of the IND, however, further testing of the product revealed that the original formulation supported the growth of a waterborne bacterium known as *Pseudomonas cepacia*. *See id.* (*See also* Long Decl., ¶¶ 6, 7 and Ex. 3, Long Tr. 279-81; Glaxo NDA at G006164, Langer Decl., Ex. 5).

[7] "Long Tr." refers to the trial testimony of Dr. David R. Long in the *Pharmadyne* case.

Pseudomonas cepacia is a waterborne bacterium that can contaminate an aqueous drug product and render it unfit for human consumption. (Long Decl., ¶ 6).

Glaxo delayed its product launch bringing the project to a "screeching halt" because of the problem this contamination caused. *See Pharmadyne,* 32 F. Supp. 2d at 277. (*See also* Long Decl., Ex. 3, Long Tr. 279-80; Long July 25, 1985 Memo at G026878, Langer Decl., Ex. 6). Dr. Long, Glaxo's Pharmaceutical Research Leader and the named inventor on the '249 patent, had responsibility for development of Glaxo's Zantac® Syrup including the search for a solution to the contamination problem. (Long Decl., ¶¶ 2, 6, and 9 and Ex. 3, Long Tr. 265, 281-82).

Dr. Long's strategy for overcoming the bacterial contamination problem in the original formulation for Zantac® Syrup was recorded contemporaneously in both his July 24, 1985 File Note and in the Zantac Oral Syrup Project Notebook P590 ("Project Notebook P590"). (Long Decl., Exs. 1 and 2, respectively). The strategy Dr. Long adopted, ultimately leading to his surprising discovery that adding ethanol to an aqueous formulation of ranitidine for oral administration enhances ranitidine stability, called for an assessment of various syrup formulations and then challenging those formulations with *Pseudomonas cepacia. See Pharmadyne*, 32 F. Supp. 2d at 278. (*See also* Long Decl., ¶¶ 8-10 and Ex. 3, Long Tr. 281-84, 404-12; Long Notes at G026881-82, Langer Decl., Ex. 7). Dr. Long considered the possible antimicrobial properties of a number of different excipients, including 5% ethanol, **REDACTED** and 0.1% phenol, in his search for a solution to the problem of *Pseudomonas cepacia* contamination. (Long Decl., ¶¶ 10-11). The complete list of excipients Dr. Long considered is found at Section 5.1 of his July 24, 1985 File Note. (Long Decl., ¶ 10 and Ex. 1, File Note at G005297/Y011640).

The protocol for testing Zantac® Syrup formulations containing either 5% (weight/volume "(w/v)") ethanol, REDACTED or 0.1% (w/v) phenol, set out in Sections 4.1, 4.2, and 4.3 of Dr. Long's File Note, provided that formulations containing one of each of these three ingredients were to be prepared for "challenge with *Ps. cepacia*." (Long Decl., ¶ 11, Ex. 1, File Note at G05296/Y11639, and Ex. 2, Project Notebook P590 at G030442/Y07486). This *Pseudomonas cepacia* challenge test would determine whether any of the added ingredients were effective at inhibiting the proliferation of *Pseudomonas cepacia* in Zantac® Syrup. (Long Decl., ¶ 11). If, and only if, this initial antimicrobial challenge test was successful would further testing then be performed as described in Section 4.1 a), b), c), and d). (*Id.*). The tests described in Section 4.1 c) and d) were ranitidine stability tests required by the U.K. and U.S. regulatory authorities. (*Id.*).

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2. Failed As An Antimicrobial And Was Never Tested, Considered, Assessed, Or Foreseen As A Ranitidine Stabilizer

During the search for a suitable antimicrobial preservative system, was one of a number of excipients tested for its affect on *Pseudomonas cepacia*. (Long Decl., ¶¶ 10 and 11, Ex. 1, File Note at G05297/Y011640, and Ex. 2, Project Notebook P590 at G030444/Y07488).

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Section 4.4 of Dr. Long's July 24, 1985 File Note contains Dr. Long's comments on the "Pros and Cons of and Ethanol." (Long Decl., ¶ 12, Ex. 1, File Note at G005296/Y011639, and Ex. 2, Project Notebook P590 at G030443/Y007487). The table found in that section records Dr. Long's thoughts on the possible use of or ethanol as an antimicrobial REDACTED preservative in Glaxo's Zantac® Syrup product. (Long Decl., ¶ 12). In Section 4.4 of Dr. Long's

File Note, with respect to the "stability of ranitidine," he states that the use of was "presumed O.K. from flavour." (*Id.* at ¶ 13). This comment reflects his thinking at the time that presumably would not negatively affect the stability of ranitidine to a significant extent because was a component of the flavouring that was already being used in the product. (*Id.*). REDACTED

By the end of August 1985, Dr. Long had determined that did not solve the *Pseudomonas cepacia* contamination problem because it failed the *Pseudomonas cepacia* challenge test. (Long Decl., ¶ 14 and Ex. 2, Project Notebook P590 at G030438-39/Y07482-83).

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Dr. Long and his team concluded that: "The addition of to Zantac® Syrup, does not enhance the preserving power of the syrup." (Long Decl., ¶ 14 and Ex. 2, Project Notebook P590 at G030438-39/Y007482-83 and G030521-22/Y07564-65 (emphasis in original); *see also* Long Decl., Ex. 3, Long Tr. 445:1 - 446:2).

The protocol set out in Sections 4.1 and 4.2 of Dr. Long's File Note confirms that no further tests on would have been performed once failed to arrest the growth of *Pseudomonas cepacia*. (Long Decl., ¶ 16 and Ex. 1, File Note at G05296/Y011639). The Zantac® Syrup Project Notebook P590 also confirms that ranitidine stability testing was performed only on the ethanol formulation and not on the formulation where was added. (Long Decl., ¶ 17 and Ex. 2, Project Notebook P590 at G030525/Y07568 (Stability Batches for the U.K.) and at G030558-59/Y07601-602 (USA Batches for Stability Testing)). REDACTED

3. Ethanol Succeeded As An Antimicrobial And Was Later Surprisingly And Unexpectedly Discovered To Enhance The Stability Of Ranitidine In An Aqueous Formulation For Oral Administration

During the search for a suitable antimicrobial preservative system, ethanol was one of a number of excipients tested for its affect on *Pseudomonas cepacia*. (Long Decl., ¶¶ 10 and 11, Ex. 1, File Note at G05297/Y011640, and Ex. 2, Project Notebook P590 at G030444/Y07488). Dr. Long's selection of ethanol to be added to the formulation of Zantac® Syrup was because of ethanol's effectiveness as an antimicrobial preservative against *Pseudomonas cepacia*. *Pharmadyne*, 32 F. Supp. 2d at 278. (*See also* Long Decl., ¶ 18 and Ex. 2, Lab Notebook P590 at G030437/Y07481, G030450/Y07494 and Ex. 3, Long Tr. 410-12, 417-18; Long Notes at G026881-82, Langer Decl., Ex. 7). It was Dr. Long's hope that the addition of ethanol would cure the bacterial contamination problem without negatively affecting the chemical stability of ranitidine in the formulation. *See id.* at 279. (*See also* Long Decl., Ex. 3, Long Tr. 287, 425). Based on the results of testing performed at Dr. Long's direction, Dr. Long preliminarily concluded that the 5% (w/v) ethanol formulation solved the problem of *Pseudomonas cepacia* contamination. *See id.* (*See also* Long Decl., Ex. 2, Project Notebook P590 at G030450/Y07494, and Ex. 3, Long Tr. 411-12, 417-18; Long August 28, 1985 Letter at G026879, Langer Decl., Ex. 9). By about October 1985, Dr. Long and his team concluded that 7.5% (w/v) ethanol would be included in the Zantac® Syrup formulation to preserve it against *Pseudomonas cepacia* contamination and to ensure that a minimum of 5% (w/v) ethanol would remain in the product formulation throughout its assigned shelf-life. *See Pharmadyne*, 32 F. Supp. 2d at 278. (*See also* Long Decl., Ex. 2, Project Notebook P590 at G030523/Y07566 and Ex. 3, Long Tr. 421-22).

The 7.5% (w/v) ethanol formulation for Zantac® Syrup was then put up on stability testing to determine whether the ranitidine in the new formulation was, in fact, chemically stable

throughout the proposed 18-month shelf-life for Zantac® Syrup. *See id.* (*See also* Long Decl., Ex. 2, Project Notebook P590 at G030609-15/Y07652-58 and Ex. 3, Long Tr. 421-22). Months later, after Glaxo had obtained stability study data for the reformulated Zantac® Syrup containing 7.5% ethanol, analysis of the stability study data surprisingly and unexpectedly indicated that ethanol was actually *enhancing* the chemical stability of ranitidine in Zantac® Syrup. *See id.* at 277, 279. (*See also* Long Decl., ¶ 18 and Ex. 2, Project Notebook P590 at G030615-17/Y07658-60 and Ex. 3, Long Tr. 424-25

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Glaxo filed British Patent Application No. GB 8629781 on December 12, 1986 and a corresponding patent application in the United States on December 11, 1987 in the name of Dr. Long. *See Pharmadyne*, 32 F. Supp. 2d at 279. (*See also* '249 File History at G000249-57, Langer Decl., Ex. 10).

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III. ARGUMENT

Infringement by equivalents exists to protect against "an infringer who appropriates the invention but avoids the literal language of the claims." *Atlas Powder Co. v. E. I. DuPont de Nemours & Co.*, 750 F.2d 1569, 1579 (Fed. Cir. 1984); *see also Festo*, 535 U.S. at 732 ("The scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described."); *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*, 339 U.S. 605, 608 (1950). Without the protection afforded by the doctrine of equivalents, "the patent grant would be a hollow and useless thing." *Corning Glass Works v. Sumitomo Elec. USA, Inc.*, 868 F.2d 1251, 1258 (Fed. Cir. 1989) (citation omitted). Defendant's unsupported and misapplied theories of estoppel cannot avoid the weight of the evidence supporting a conclusion of infringement under the doctrine of equivalents in this case.

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See Graver Tank, 339 U.S. at 607 (The doctrine of equivalents protects patent owners from copyists who "make unimportant and insubstantial changes and *substitutions* in the patent which, though adding nothing, would be enough to take the copied matter outside the claims . . . .") (emphasis added).

A. Defendant's Amendment-Based Estoppel Argument Does Not Apply: Applicant Never Amended The "Ethanol" Claim Limitation To Exclude Equivalent Types of Ranitidine Stabilizers

The claim limitation added by amendment during the prosecution of the '249 patent – "a stabilizing effective amount of" – is not the subject of a claim of equivalents. Defendant's ANDA Product literally satisfies this functionally defined "amount" by including a sufficient

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amount of a stabilizer to enhance the stability of ranitidine in an aqueous formulation for oral administration. (Anderson Opening Rpt.[8] ¶¶ 64-65, 70). In the absence of an equivalents claim there is no basis on which to raise a prosecution history estoppel defense.

"Ethanol" is the claim limitation that identifies the stabilizer which is the subject of an equivalents allegation, but the "ethanol" limitation was contained in the original patent claims submitted to the Patent Office. ('249 File History at G000120, Langer Decl., Ex. 10). Applicant never amended the "ethanol" claim limitation to surrender equivalent types of ranitidine stabilizers. (*Id.* at G000213; '249 Patent at Col. 2:67 - Col. 3:4, Langer Decl., Ex. 1). Therefore, defendant's amendment-based estoppel argument does not apply to this claim limitation. *See Festo*, 344 F.3d at 1366 ("The first question in a prosecution history estoppel inquiry is whether an amendment filed in the Patent and Trademark Office ("PTO") has narrowed the literal scope of a claim. If the amendment was not narrowing, then prosecution history estoppel does not apply.") (citing *Pioneer Magnetics, Inc. v. Micro Linear Corp.*, 330 F.3d 1352, 1356 (Fed. Cir. 2003) ("Prosecution history estoppel serves to limit the doctrine of equivalents by denying equivalents to a claim limitation whose scope was narrowed during prosecution for reasons related to patentability.") (emphasis added)).

1. Glaxo Never Amended The "Ethanol" Claim Limitation

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Claim 1 in the original U.S. patent application filed by Dr. Long on December 11, 1987 contained the word "ethanol":

[8] "Anderson Opening Rpt." refers to "Bradley D. Anderson, Ph.D., Fed. R. Civ. P. 26(a)(2) Expert Witness Report Concerning The Issue of Infringement of Glaxo's '249 Patent" attached as Exhibit A to the Anderson Declaration submitted on June 30, 2006. (D.I. 98).

> A pharmaceutical composition which is an aqueous formulation of ranitidine and/or one or more physiologically acceptable salts thereof, said formulation also containing *ethanol.*

('249 File History at G000213, Langer Decl., Ex. 10) (emphasis added). In Office Actions dated May 5, 1988 and June 28, 1989, U.S. Patent Office Examiner Friedman rejected claim 1 and other claims as indefinite and non-enabled under 35 U.S.C. § 112 and as being unpatentable under 35 U.S.C. § 103 over two Chemical Abstracts cited by the Examiner. (*Id.* at G000264-65, G000131-33). Examiner Friedman stated that the claims were not enabled under 35 U.S.C. § 112 because "[a]ll claims should recite *amounts* for all ingredients." (*Id.* at G000264, G000131) (emphasis added).

Applicant filed responsive Amendments on November 7, 1988 and October 30, 1989, respectively. Applicant amended Claim 1 as follows:

> 1. (Amended) A pharmaceutical composition which is an aqueous formulation <u>for oral administration</u> of ranitidine and/or one or more physiological acceptable salts thereof, said formulation also containing <u>a stabilizing effective amount of</u> ethanol <u>and said composition having a pH in the range of 6.5 to 7.5</u>.

(October 30, 1989 Amendment, '249 File History at G000139, G000267, Langer Decl., Ex. 10). Applicant explained to the Examiner that "the amount of ethanol present has been functionally defined. . . . The expression 'also containing ethanol' has been modified to specify that the *amount* of ethanol contained in the composition is a stabilizing amount of ethanol and this amendment is fully supported by applicant's specification at page 2, lines 4 and 5 ['249 patent, Col. 1:54-56 referring to adding an "amount of ethanol . . . such that the resulting formulation has the enhanced stability]." (*Id.* at G000267-68, G000140) (emphasis added). The amendment adding the "stabilizing effective amount" limitation required a particular amount of ethanol. The subject matter surrendered by this amendment was limited to those <u>amounts</u> of ethanol that do

not have a stabilizing effect on ranitidine in an aqueous formulation for oral administration. The amendment did not narrow "ethanol" to exclude equivalent types of ranitidine stabilizers.

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only a claim limitation which included an initial, broader group of stabilizers that was later amended to narrow the type of stabilizer exclusively to ethanol could have invoked an amendment-based estoppel as argued by defendant. For example, if applicant had claimed "A pharmaceutical composition which is an aqueous formulation of ranitidine . . . also containing a stabilizing effective amount of an organic alcohol" in its originally filed patent claims, but later amended the claim to read ". . . an aqueous formulation of ranitidine . . . also containing a stabilizing effective amount of ~~an organic alcohol~~ ethanol," then there would have been a rebuttable presumption of estoppel that applicant had "surrendered all territory between the original claim limitation and the amended claim limitation." *Festo*, 344 F.3d at 1367.

REDACTED and Glaxo would have had to rebut the presumption of estoppel "by demonstrating that it did not surrender the particular equivalent in question . . . ." *Id.* This example serves to highlight the distinction between the facts of this case and a proper application of prosecution history estoppel. Defendant's amendment-based estoppel argument does not apply to this case.

2. Even Under The Rebuttable Presumption Test Of *Festo*, The "Stabilizing Effective Amount" Claim Amendment Was Tangential

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Even if a presumption of amendment-based estoppel were to apply under the rule of *Festo*, "a patentee may rebut the presumption of surrender by showing that 'at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.' " *Festo*, 344 F.3d at 1368 (citing

Festo, 535 U.S. at 741). Glaxo need satisfy only one of the stated *Festo* rationale to satisfy the test and pursue its equivalents claim. *Id.*; *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 287 F. Supp. 2d 126, 140 (D. Mass. 2003) (Young, J.). The first rationale under which a patentee may rebut the presumption of surrender is where "the amendment bears no more than a tangential relation to the equivalent in question." *Festo* 535 U.S. at 740; *see also Cordis Corporation v. Medtronic AVE, Inc.*, 336 F. Supp. 2d 363, 369 (D. Del. 2004) (Robinson, J.) (stating that the focus should be " 'on the patentee's objectively apparent reason for the narrowing amendment,' as well as 'the context in which the amendment was made' ") (citing *Festo*, 344 F.3d at 1369-1370). Here, the purpose of the amendment – setting a functional limit on the amount of ethanol in the formulation – was only tangential to defendant's substitution of a different type of

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There is ample evidence in the prosecution history of the '249 patent showing that the amendment was made in response to the Examiner's stated ground for rejection under § 112 that the amounts of the ingredients needed to be stated in the claims. (May 5, 1988 Office Action, '249 File History at G000263-65, Langer Decl., Ex. 10). The amendment was not made in response to any argument that other than ethanol were disclosed in the prior art as having a stabilizing effect on ranitidine in an aqueous formulation for oral administration. There was no such prior art. **REDACTED** Anderson Rebuttal Rpt. ¶¶ 8, 9, and 61-63). The only discourse during the prosecution of the '249 patent relating to the "ethanol" limitation was how much of it was required in the formulation. There was no discussion, for example, of a *Markush*[9] group of different types of **REDACTED**

[9] A *Markush* group is named after *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925), which sanctions claiming a genus expressed as a group consisting of certain specified materials. (continued)

ethanol's chemical properties in comparison to those of other The applicant decided to define the amount of ethanol in claim 1 in purely functional terms as "a stabilizing effective amount of ethanol," and the dependent claims thereafter further limited the functionally defined amount of ethanol to certain numerical ranges on a percentage basis. This amendment, therefore, was tangential to defendant's substitution of for "ethanol."

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In *Amgen*, the court found that the accused equivalent in question was foreseeable at the time of the claim amendment but that the presumption of estoppel could still be rebutted if one of the other *Festo* rationale was established. *Amgen*, 287 F. Supp. 2d at 149-150. In analyzing whether the reason for an amendment was tangential to the equivalent in question, the court stated:

> The correct inquiry is whether the rationale underlying the amendment, the "reason the amendment was submitted" – not the amendment itself – is more than peripherally related to the equivalent in question.

Id. at 150; *Cordis*, 336 F. Supp. 2d at 369; *see also Insituform Technologies, Inc. v. CAT Contracting, Inc.*, 385 F.3d 1360, 1367-68 (Fed. Cir. 2004) (affirming a finding of infringement under the doctrine of equivalents where the rationale for the amendment bore "only a tangential relation" to the equivalent in question). The court further stated that:

> if the reason for the amendment was only tangentially related to the equivalent, it would not have been *reasonable* to *expect* the patentee to have drafted the claim so that it literally included the equivalent in question; that is, while the patentee perhaps *could have* drafted the claim otherwise to include the equivalent, it would

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One acceptable form of alternative expression, which is commonly referred to as a *Markush* group, recites members as being "selected from the group consisting of A, B and C."

> not be *reasonable* to have *expected* it to have done so if the amendment was not even remotely related to the equivalent in question.

Amgen, 287 F. Supp. 2d at 137-38 (emphasis in original). The court found that the amendment in question was tangential to the accused equivalent at issue and that the claims were infringed under the doctrine of equivalents. *Id.* at 154.

Here, the October 30, 1989 Amendment was made in response to the Examiner's June 28, 1989 Office Action rejecting the claims as not enabled because "claims should recite amounts for all ingredients." ('249 File History at G000131, Langer Decl., Ex. 10) (emphasis added). The reason for the amendment was not related to the equivalent in question – **REDACTED** Rather, it was in response to a request by the Examiner that amounts be recited for each formulation component. Defendant acknowledged this in its brief: "Glaxo added 'stabilizing effective amount of' to the 'ethanol' element of claim 1 to define the **amount** of ethanol present." (Teva Brief at 28) (underline in original, bold added). Glaxo submits that the amended claim limitation, "a stabilizing effective amount of" bears no more than a tangential relation to defendant's REDACTED to enhance ranitidine stability in an aqueous formulation for oral administration.

3. Defendant's Allegation Of "Foreseeability" Is Rank Speculation Flatly Contradicted By Dr. Long And Rejected By Both Experts And The *Pharmadyne* Court

Glaxo has satisfied an alternative rationale for rebutting the *Festo* presumption because defendant's REDACTED was unknown and would have been unforeseeable to a person of ordinary skill in the art at the time of the claim amendment. *See Festo*, 535 U.S. at 738; *Festo*, 344 F.3d at 1368-69. The Federal Circuit has characterized this inquiry as follows:

> This criterion presents an objective inquiry, asking whether the alleged equivalent would have been unforeseeable to one of ordinary skill in the art at the time of the amendment. Usually, if the alleged equivalent represents later-developed technology (e.g., transistors in relation to vacuum tubes, or Velcro® in relation to fasteners) or technology that was not known in the relevant art, then it would not have been foreseeable. In contrast, old technology, while not always foreseeable, would more likely have been foreseeable. Indeed, if the alleged equivalent were known in the prior art in the field of the invention, it certainly should have been foreseeable at the time of the amendment. *See Pioneer Magnetics*, 330 F.3d at 1357. By its very nature, objective unforeseeability depends on underlying factual issues relating to, for example, the state of the art and the understanding of a hypothetical person of ordinary skill in the art at the time of the amendment. Therefore, in determining whether an alleged equivalent would have been unforeseeable, a district court may hear expert testimony and consider other extrinsic evidence relating to the relevant factual inquiries.

Festo, 344 F.3d at 1369. The unknown and unforeseeable use of REDACTED REDACTED is precisely the type of equivalent captured by the doctrine of equivalents

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Defendant's attempt to rely on the inventor's personal knowledge and proprietary research prior to his application for the '249 patent is not a proper starting place to examine the foreseeability of an equivalent. *Cf. Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Education and Research*, 304 F.3d 1221, 1231 (Fed. Cir. 2002) ("Patentability requires novelty and unobviousness in light of the prior art, not in light of what the inventor knew and included in his patent application.") (vacated, superseded on other grounds by, rehearing, *en banc*) 346 F.3d 1051 (Fed. Cir. 2003). Foreseeability is to be determined by the objective standard of what one of ordinary skill in the art at the time of the patent's prosecution would have understood, including what was published in the prior art. *See SmithKline Beecham Corp. v. Excel*

Pharmaceuticals, Inc., 356 F.3d 1357, 1365 (Fed. Cir. 2004); *see also Festo*, 535 U.S. at 740. Even when Dr. Long's non-public work and project notebooks are considered, along with whatever knowledge may be imparted to one of ordinary skill in the art,

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In Section 4.4 of his July 24, 1985 File Note, Dr. Long commented that the stability of ranitidine was "presumed O.K. from flavour." (*Id.* at ¶ 13). This comment reflected his thinking at the time that presumably would not negatively affect the stability of ranitidine to a significant extent becaus was a component of the flavouring already being used in the product.

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In July-August of 1985, Dr. Long and his team tested a formulation of Zantac® Syrup for its effectiveness as an antimicrobial preservative against *Pseudomonas cepacia*. (*Id.* at ¶ 14 and Ex. 2, Project Notebook P590 at G030438-39). The REDACTED formulation failed the *Pseudomonas cepacia* challenge test. (*Id.* at ¶ 14). It was then abandoned and no further testing was performed on it. (*Id.* at ¶¶ 15-17).

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The ranitidine stabilizing effect of ethanol itself came as a

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c. The Court In *Pharmadyne* Found Propylene Glycol To Be An Unforeseeable Equivalent To Ethanol In The '249 Patent Claims

REDACTED The court found that propylene glycol was an unforeseeable equivalent to ethanol in the context of the '249 patent.

> While it is true that Glaxo rejected propylene glycol it did so only as to its use as an agent against *pseudomonas cepacia*, not as an agent for stabilization. Nothing in the prosecution history of the '249 patent shows that Glaxo considered the use of propylene glycol or any other constituent as a stabilizer. The evidence reflects that the invention came as a surprise and was not an intended result.

Pharmadyne, 32 F. Supp. 2d at 290-91 (specifically rejecting the application of *Tanabe Seiyaku Co. Ltd. v. ITC*, 109 F.3d 726 (Fed. Cir. 1997), as argued by defendant in this case). The finding

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In sum, even if the rebuttable presumption test of *Festo* were to apply, Glaxo has satisfied the test to pursue its claim of equivalents against defendant.

B. REDACTED

1. There Was No "Clear And Unmistakable Surrender Of Subject Matter" During Prosecution Of The '249 Patent Applications

"There are two distinct theories that fall under the penumbra of prosecution history estoppel – amendment-based and argument-based estoppel. . . . In general, prosecution history estoppel, under either theory, requires that patent claims be interpreted in light of the proceedings

before the PTO." *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*, 347 F.3d 1314, 1324-25 (Fed. Cir. 2003). To invoke argument-based estoppel, the prosecution history "must evince a clear and unmistakable surrender of subject matter." *Aquatex Industries, Inc. v. Techniche Solutions*, 419 F.3d 1374, 1382 (Fed. Cir. 2005) (*quoting Pharmacia & Upjohn Co. v. Mylan Pharmaceuticals, Inc.*, 170 F.3d 1373, 1376-1377 (Fed. Cir. 1999); *see also Deering*, 347 F.3d at 1326. "To determine if subject matter has been relinquished, an objective test is applied, inquiring 'whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter.' " *Aquatex*, 419 F.3d at 1382 (*quoting Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1457 (Fed. Cir. 1998). The applicant for the '249 patent did not make any argument to the Patent Office that would support defendant's assertion of argument-based prosecution history estoppel to avoid a finding of patent infringement. Given the proper context and bases for the Examiners' rejections and applicant's responses thereto, there was no clear and unmistakable surrender of other types of ranitidine stabilizers equivalent to ethanol, **REDACTED** in any argument made by applicant during the prosecution of the '249 patent applications.

2. Applicant Did Not Surrender Other Types of Ranitidine Stabilizers Equivalent To "Ethanol,"

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At the outset and as discussed above, Glaxo emphasizes that the applicant never amended the "ethanol" limitation in the '249 patent claims to exclude other types of equivalent ranitidine stabilizers. "Ethanol" was in the originally-filed claim and remained unaltered in the final-allowed claims. The prior art did not disclose the use of any organic alcohol to enhance the

[10] For a complete summary of the '249 patent prosecution, please see pages 15-22 of Glaxo's opening claim construction brief filed with the Court on June 30, 2006. (D.I. 97).

stability of ranitidine in an aqueous formulation for oral administration, and the Patent Office examiners never made such an argument. Glaxo, therefore, never had any reason to argue or infer that ethanol was the only type of that could enhance ranitidine stability. (*See* Anderson Rebuttal Rpt. ¶ 33). Rather, applicant consistently argued that it was ethanol's surprising beneficial effect of enhancing the stability of ranitidine in an aqueous formulation for oral administration that distinguished the invention from the prior art.

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In the Amendments filed on November 7, 1988 and October 30, 1989, applicant explained that "there is no teaching whatever that the *stability of ranitidine* or its salts as an aqueous formulation for oral administration *is enhanced* by the presence of ethanol and no suggestion that ethanol should be included in pharmaceutical formulations containing ranitidine *as presently claimed*." ('249 File History at G000142, G000269, Langer Decl., Ex. 10) (emphasis added). By defining the amount of ethanol in functional terms and highlighting the importance of the stabilizing effect on ranitidine, which was not disclosed in the prior art, applicant did not disclaim in any way the potential use of other types of equivalent organic alcohols to stabilize ranitidine in an aqueous formulation for oral administration. (*See* Anderson Rebuttal Rpt. ¶ 31).

Applicant also did not disclaim equivalent types of ranitidine stabilizers, REDACTED when it disclosed and described prior art UK Patent Application GB 2 120 938 A ("the '938 application") in its October 30, 1989 Amendment, as urged by defendant. (Teva Brief at 14, 22-23, 27). In describing the '938 application to the PTO, Glaxo stated:

> This specification related to the combination of anti-ulcer drugs such as ranitidine together with salicylic acid or a salt thereof and optionally a non-steroidal anti-inflammatory. Page 7, lines 20-29 of this document refers to the formulations for parenteral administration and states that these may be formulated in water or *organic solvents* including a reference to lower aliphatic alcohols,

aliphatic alcohols REDACTED to accomplish the same function claimed in the '249 patent as argued by defendant.

Applicant's distinction between two different functions of ethanol rather than between two different lower aliphatic alcohols REDACTED is clear from an examination of other remarks made by the applicant during the prosecution of the '249 patent, which must be considered as a matter of law. *See Carbide Blast Joints, Inc. v. Rickert Precision Industries, Inc.*, Civ. Nos. 95-1040, 95-1059, 1995 U.S. App. LEXIS 33800, *16 (Fed. Cir. Dec. 4, 1995) ("Not every statement made by a patentee to distinguish a prior art reference creates a separate estoppel. We must read the statements in the context in which they were made.") (attached hereto as Exhibit A). For example, applicant repeatedly emphasized the importance of stabilizing the active ingredient in a pharmaceutical formulation for oral administration:

> [T]he *stability* of a pharmaceutical formulation for oral administration is the most important factor and enhancing the stability of the active ingredient of such formulations is always an objective. . . . Any improvement that can be made in *enhancing the stability* of the drug substance can only benefit the patient since it ensures more accurate dosage and the intake of less breakdown products. In addition, *enhancement of the stability* of the drug substance also benefits from the economic point of view in that it increases the effective shelf life of the product. There is not even the most remote suggestion of this in the prior art of record.

('249 File History at G000143, G000176, Langer Decl., Ex. 10) (emphasis added). Additionally, in response to the Examiner's rejection that "[a]bsent evidence to the contrary, the addition of ethanol is considered merely to be a choice among known conventional excipients," applicant submitted the Hempenstall Declaration. Dr. Hempenstall explained: "In my laboratory it was found that for an aqueous based ranitidine formulation, a *significant and surprising enhancement in the stability of ranitidine* is achieved by the addition of ethanol to the formulation." (*Id.* at G000209, ¶ 5) (emphasis added). REDACTED

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3. The *Pharmadyne* Court Distinguished The Facts of *Tanabe* From The '249 Invention Development And Prosecution History, And Defendant's Other Cited Cases Are Also Inapposite

The court in *Pharmadyne* specifically considered and distinguished defendant's proposed application of *Tanabe Seiyaku Co. Ltd. v. ITC*, 109 F.3d 726 (Fed. Cir. 1997), from the facts of the '249 invention development and prosecution history. *Pharmadyne*, 32 F. Supp. 2d at 290. Pharmadyne made the same argument defendant makes here – that Dr. Long's *Pseudomonas cepacia* challenge test against REDACTED formulation of Zantac® Syrup, coupled with the absence of any reference to in the '249 patent, estops Glaxo from asserting equivalence. Defendant, however, admits the critical factual distinction on which the *Pharmadyne* court relied to distinguish *Tanabe*: "In this case, failed for reasons unrelated to the stability of ranitidine, i.e., a lack of antimicrobial preservative properties." (Teva Brief at 24-25). The *Pharmadyne* court recognized that in *Tanabe*, the inventor had specifically rejected the accused equivalent "as a possible element to claim in the [patented] process," whereas Dr. Long rejected 'only as to its use as an agent against *pseudomonas cepacia*, not as an agent for stabilization." *Id.* at 290-91.

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In *Tanabe*, the issues on appeal were (1) whether the International Trade Commission had properly construed claim 1 of a patent covering a process for preparing a pharmaceutical product used to treat cardiovascular diseases and (2) whether the Commission properly limited the scope of the doctrine of equivalents to hold that the use of butanone in the process, instead of acetone as claimed in the patent, was non-infringing. *Tanabe*, 109 F.3d at 728-29; *Pharmadyne*, 32 F. Supp. 2d at 290. The process claimed in the patent at issue in *Tanabe* involved the use of

five combinations of bases and solvents, where acetone and lower alkyl acetates were used as solvents. The accused product used butanone as a solvent instead of acetone. *Tanabe*, 109 F.3d at 728-29. The evidence established that both butanone and acetone are ketones; have the same functional group, called a carbonyl group; and are homologs differing only in that butanone has an additional methylene group. *Id.*

The prosecution history of the patent demonstrated that Tanabe had limited the claims of the patent to the five "specific base-solvent combinations" and "*that other ketone solvents* may result in lower yields" than what Tanabe wanted. *Id.* at 732 (emphasis added); *Pharmadyne*, 32 F. Supp. 2d at 290. The court considered the fact that butanone had been rejected by Tanabe in an experiment conducted on its behalf prior to the filing of its patent application, and concluded that the rejection by the patentee provided evidence of "a substantial difference between the claimed and accused process." *Tanabe*, 109 F.3d at 732-33. The court stated:

> In the present case, the representations made to foreign patent offices are relevant to determine whether a person skilled in the art would consider butanone or other ketones to be interchangeable with acetone in Tanabe's claimed . . . reaction. Because Tanabe represented that its "specific base-solvent combinations" distinguish its process from the prior art, Tanabe's statements to foreign patent offices suggest to a person skilled in the art that other solvents, including butanone, may not be interchangeable with the claimed solvents.

Id. at 733. The court affirmed the decision holding that the Commission had properly limited the scope of the doctrine of equivalents because the patent claim was limited to the five base-solvent combinations disclosed in the patent. *Id.* at 734.

In *Tanabe,* there was evidence that butanone did not react similarly to acetone and, thus, was rejected by Tanabe as a possible element to claim in the process. *Pharmadyne*, 32 F. Supp. 2d at 290. In contrast, while it is true that Glaxo rejected it did so only as to its use as an antimicrobial preservative agent against *Pseudomonas cepacia*, not as a ranitidine

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stabilizer[11] claimed in the '249 patent. *Id.* at 290-291. (*See also* Long Decl., ¶¶ 14-17). Nothing in the prosecution history of the '249 patent shows that Glaxo considered the use of REDACTED or any other constituent as a ranitidine stabilizer. *Id.* at 291. (*See also* Anderson Rebuttal Rpt. ¶ 40). The evidence reflects that the invention came as a surprise and was not an intended result. *Id.* (*See also* Long Decl., ¶ 18 and Ex. 3, Long Tr. 426:16-20). The facts of the *Tanabe* case do not support any estoppel here.

The same, sharp contrast applies to the facts of the '249 invention development and prosecution history when compared to the invention discussed in *Pharmacia & Upjohn Co. v. Mylan Pharmaceuticals,* 170 F.3d 1373 (Fed. Cir. 1999). (Teva Brief at 25-27). Throughout the prosecution of the applications that led to the '249 patent, applicant never stated or implied that ethanol was the only potential stabilizer of ranitidine. Upjohn's attorney and the inventor of its patent-in-suit, on the other hand, made several explicit statements to the PTO disclosing that the use of spray-dried lactose (as opposed to any other type of lactose equivalents disclosed in the prior art) was a "critical" and "key" feature of their invention. *Id.* at 1377-1378. The inventor further limited his invention when he declared to the PTO that "if ordinary or non-spray-dried lactose is employed in place of the spray-dried lactose, then the advantages of the present invention are lost." *Id.* at 1378. During the prosecution of the applications that led to the '249 patent, applicant did not make any such analogous statements distinguishing between the use of ethanol an REDACTED to stabilize ranitidine in an aqueous formulation for oral administration. Applicant never distinguished ethanol from any other type of

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because the prior art did not disclose any that could be used to enhance the stability of ranitidine in an aqueous formulation for oral administration.

4. Defendant's Reliance On *Wilson Sporting Goods*[12] Is Misplaced

Defendant's reliance on *Wilson Sporting Goods* to support an estoppel is misplaced and serves only to complicate further the issues before this Court. *Wilson Sporting Goods* stands for the proposition that "there can be no infringement if the asserted scope of equivalency of what is literally claimed would encompass the prior art." 904 F.2d at 683 (emphasis added). In applying this proposition, the court in *Wilson Sporting Goods* explained:

> Whether prior art restricts the range of equivalents of what is literally claimed can be a difficult question to answer. To simplify analysis and bring the issue onto familiar turf, it may be helpful to conceptualize the limitation on the scope of equivalents by visualizing a hypothetical patent claim, sufficient in scope to literally cover the accused product. The pertinent question then becomes whether that hypothetical claim could have been allowed by the PTO over the prior art. If not, then it would be improper to permit the patentee to obtain that coverage in an infringement suit under the doctrine of equivalents. If the hypothetical claim could have been allowed, then prior art is not a bar to infringement under the doctrine of equivalents.

Id. at 684. Defendant does not identify any prior art that would encompass it's accused product using to stabilize ranitidine in an aqueous formulation for oral administration, because there is none

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[12] *Wilson Sporting Goods Co. v. David Geoffrey & Associates*, 904 F.2d 677 (Fed. Cir. 1990).

REDACTED Defendant's reliance on *Wilson Sporting Goods* is misplaced and should be disregarded by the Court.[13]

C. REDACTED

The Rule of *Johnson & Johnston* Does Not Apply To This Case

Defendant contradicts itself by relying on a legal doctrine which states that if an embodiment of an invention is disclosed but not claimed in a patent, then it is dedicated to the public and cannot be captured under the doctrine of equivalents. (Teva Brief at 31). "When a patent drafter discloses but declines to claim subject matter . . . this action dedicates the unclaimed subject matter to the public." *Johnson & Johnston Assocs. Inc. v. R.E. Service Co.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002). For it is " '[o]nly those compounds or articles that are clearly identified as alternatives to what is actually claimed [that] are subject to the bar' against recapturing disclaimed subject matter using the doctrine of equivalents." *Pfizer, Inc. v. Teva Pharmaceuticals USA, Inc.*, 429 F.3d 1364, 1379 (Fed. Cir. 2005) (citation omitted).

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[13] Courts, including those in the Third Circuit, have limited the analysis of *Wilson Sporting Goods* to the facts in that case:

> Having studied the Wilson decision carefully, I must disagree with the meaning the Special Master derives from it. In my view, the Wilson court's use of a hypothetical claim was simply a technique to assist the reader in following their analysis of the particular question at issue. The language used to preface their analysis – such as '[t]o simplify analysis' and 'it may be helpful to conceptualize' – is not indicative of a court attempting to change how an issue is examined.

Refac International Ltd. v. Matsushita Electric Corp. of America, No. 88-2586, 17 U.S.P.Q.2d (BNA) 1293, 1297 (D.N.J. Oct. 22, 1990) (attached hereto as Exhibit B) (emphasis added).

The rule of *Johnson & Johnston* is a technical defense, not an expression of policy as defendant argues, and the rule of *Johnson & Johnston* does not apply to the facts of this case. (Teva Brief at 32).

1. REDACTED

The '249 patent specification is clear in its disclosure of ethanol as a stabilizer of ranitidine in an aqueous formulation for oral administration. It is equally clear that REDACTED is not disclosed anywhere in the '249 patent. ('249 patent, *passim*, Langer Decl., Ex. 1; REDACTED "[B]efore unclaimed subject matter is deemed to have been dedicated to the public, that unclaimed subject matter must have been identified by the patentee as an alternative to a claim limitation." *Pfizer*, 429 F.3d at 1379. Dr. Long never identified as an alternative to ethanol for stabilizing ranitidine in an aqueous formulation for oral administration in the '249 patent application.

In *Johnson & Johnston,* the patentee had disclosed both aluminum and steel substrates as embodiments of the invention in the patent, but he only claimed the aluminum substrate in the patent claims. The Federal Circuit held that "Johnson cannot assert the doctrine of equivalents to cover the disclosed but unclaimed steel substrate." *Johnson & Johnston*, 285 F.3d at 1055.

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The *Johnson*

& Johnston defense, moreover, is a technical defense, and defendant fails to cite a single case to support its "policy" rationale offered as a justification. Defendant's reliance on *Johnson & Johnston* is emblematic of its "kitchen sink" approach to staving off a judgment of patent infringement.

2. **REDACTED**

Dr. Long did not set out to develop a stabilizer for ranitidine in an aqueous formulation for oral administration but rather to find a solution to the problem of *Pseudomonas cepacia* contamination in Zantac® Syrup.

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Defendant's assertions that Dr. Long "considered function as a stabilizer in an oral ranitidine solution, as opposed to a preservative," that he "assessed ... .. effect on the 'stability of ranitidine' " and that he "foresaw the use of

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as a stabilizer for ranitidine before his patent application was filed" are all wrong. (Teva Brief at 8 and n.13; Long Decl., ¶¶ 13, 19). Dr. Long flatly denies the assertions, and defendant does not have any evidence to support its creative interpretation of Dr. Long's own File Note entry. REDACTED In conclusion, defendant's policy argument for applying the rule of *Johnson & Johnston* fails on all counts and should be rejected by this Court.

D. Defendant's Accused Product Satisfies All Of The '249 Patent Claim Limitations, And No Claim Term Is "Vitiated" Under Glaxo's Infringement Analysis

Defendant's ANDA Product satisfies all of the '249 patent claim limitations either literally or by equivalents

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. "Literal failure to meet a claim limitation does not necessarily amount to 'specific exclusion.' " *Ethicon Endo-Surgery, Inc., v. United States Surgical Corporation*, 149 F.3d 1309, 1317 (Fed. Cir. 1998). The arguments espoused by defendant "would force the All Elements rule to swallow the doctrine of equivalents, reducing the application of the doctrine to nothing more than a repeated analysis of literal infringement." *See id.* (footnote omitted).

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"[C]ourts must consider the totality of the circumstances of each case and determine whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless." *Pfizer*, 429 F.3d at 1380; *see also Graver Tank*, 339 U.S. at 609.

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[14] See discussion in Glaxo's Opening Brief In Support of Its Motion For Summary Judgment Of Infringement at pp. 16-24 which will not be repeated here. (D.I. 95).

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E. Glaxo Has Proved All That Is Required For A Finding of Patent Infringement: I

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Equivalence exists if the accused product includes a limitation equivalent to a recited claim limitation. *Graver Tank*, 339 U.S. at 608 (emphasis added). The question to be decided is whether the infringing product accomplishes substantially the same function, in substantially the same way to achieve substantially the same result as the claimed invention. *Id.*; *Warner Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997) ("An analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the *claimed element*, or whether the substitute element plays a role substantially different from the *claimed element*.") (emphasis added). The claim limitations, therefore, measure the infringement. Additional, unclaimed properties of a claim limitation – such as the antimicrobial preservative and solvent properties of ethanol – are neither relevant nor required elements of proof as suggested by

defendant. *See Graver Tank*, 339 U.S. at 608; *Warner Jenkinson*, 520 U.S. at 40. In its brief, defendant states, without citation:

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This is an incorrect statement of law, because it is only the claimed function of ethanol that Glaxo must prove is in defendant's accused product. *See Graver Tank*, 339 U.S. at 608; *Warner Jenkinson*, 520 U.S. at 40. Defendant cannot muster a single citation to support its incorrect legal proposition that infringement of the '249 patent requires proof of unclaimed "functions" of ethanol, and its attempt to read-in limitations other than the claimed stabilizing function of ethanol is improper.

The '249 patent claims "a stabilizing effective amount of ethanol." There is no antimicrobial preservative or solvent function claimed for ethanol, nor does defendant argue that any claim limitation in the '249 patent claims should be construed to include an antimicrobial preservative or solvent function of ethanol. (Please see defendant's opening claim construction brief D.I. 101 at 3). During prosecution of the applications that led to the '249 patent, the applicant specifically acknowledged and distinguished the prior art functions of using ethanol as an antimicrobial preservative or solvent from the claimed invention. ('249 File History at G000205, Langer Decl., Ex. 10).

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F. The Conclusions Of *Pharmadyne* And Its Highly Persuasive Analysis Of Patent Infringement Have Not Been Altered By Any New Facts Or Law

Glaxo explains the facts of *Glaxo v. Pharmadyne*, and that court's determination of patent infringement under the doctrine of equivalents, in its memorandum in support of Glaxo's motion for summary judgment of patent infringement. Glaxo agrees that the *Pharmadyne* decision is not binding precedent on this Court, but the *Pharmadyne* court did reject the same arguments based on the same evidence raised by defendant. Glaxo submits that the *Pharmadyne* decision is highly persuasive precedent that has not been altered by any new facts or subsequent legal precedent.

The most important findings in the *Pharmadyne* case were that (i) the REDACTED the accused product performed substantially the same function, in substantially the same way, to achieve substantially the same result as the ethanol in Glaxo's '249 patent, and (ii) Pharmadyne used REDACTED in place of ethanol to stabilize ranitidine in its generic ANDA product. *Pharmadyne,* 32 F. Supp. 2d at 285-288.

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Defendant also chose not to take any fact depositions in this case. Glaxo produced all of the same documents in connection with the '249 patent to defendant that it had previously produced to Pharmadyne, including Dr. Long's July 24, 1985 File Note. (Langer Suppl. Decl., ¶ 5). Defendant's argument that Dr. Long's File Note "was not before the *Pharmadyne* court" is incorrect. (Teva Brief at 38). The document was produced to Pharmadyne, and it was admitted

into evidence as part of plaintiff's Trial Exhibit 238, the Zantac® Syrup Project Notebook P590. (Langer Suppl. Decl., ¶ 6 and Ex. 3; Long Decl.,, ¶ 8 and Ex. 2). Even Pharmadyne, however, did not try to give Dr. Long's File Note the tortured interpretation that defendant gives it in this case. Glaxo submits that the facts and analysis of patent infringement in *Pharmadyne* are highly persuasive here, and there is nothing in the factual record of this case to alter the conclusion of patent infringement under the doctrine of equivalents.

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. The subsequent decisions by the Supreme Court and Federal Circuit Court of Appeals in *Festo* do not alter this conclusion. Even before *Festo*, and certainly when the *Pharmadyne* court entered a judgment of patent infringement against Pharmadyne, the law was that a patentee could not recapture that which had been surrendered, either by amendment or argument, during prosecution of the patent at issue. *See Festo*, 535 U.S. at 733-34 (citing cases from the 1940s for this basic proposition). *Festo* does not change this basic tenet of patent law, nor does *Festo* alter the *Pharmadyne* court's finding of infringement, based on the enhanced ranitidine stability of Pharmadyne's formulation REDACTED when compared to Glaxo's prior art formulation without any stabilizer. *Pharmadyne*, 32 F. Supp. 2d at 285-88. Glaxo submits that the analysis in *Pharmadyne* is highly persuasive support for a finding of infringement under the doctrine of equivalents in this case.

[16] Please *see* Glaxo's Opening Brief in Support of its Motion for Summary Judgment of Infringement at pp. 26-27 for a complete explanation of the facts.

IV. CONCLUSION

For the reasons stated above, Glaxo respectfully requests that the Court deny defendant's motion for summary judgment of non-infringement and find that defendant's accused ANDA Product infringes claims 1-12 of Glaxo's '249 patent under the doctrine of equivalents.

Dated: July 28, 2006

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CERTIFICATE OF SERVICE

I hereby certify that on August 4, 2006, I filed a redacted version of **PLAINTIFF GLAXO'S ANSWERING BRIEF TO DEFENDANT'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT** with the Clerk of Court and will hand deliver such filing to the following:

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